This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

FILE 'HOME' ENTERED AT 15:55:32 ON 10 SEP 2002

=> file registry
COST IN U.S. DOLLARS

SINCE FILE

ENTRY

TOTAL SESSION

FULL ESTIMATED COST

0.21 0.21

FILE 'REGISTRY' ENTERED AT 15:55:51 ON 10 SEP 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 9 SEP 2002 HIGHEST RN 448894-79-9 DICTIONARY FILE UPDATES: 9 SEP 2002 HIGHEST RN 448894-79-9

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

L2 16 L1 AND (CYCLIC OR BRIDGE)/NTE

=> d 12 sqd,bib 1-16

L2 ANSWER 1 OF 16 REGISTRY COPYRIGHT 2002 ACS

RN 329077-30-7 REGISTRY

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 18

NTE cyclic

SEQ 1 ARRAEYAKKY PPYEYAKK

=====

HITS AT: 1-5, 18

REFERENCE 1

AN 134:208139 CA

TI Synthesis of template-fixed .beta.-hairpin loop mimetics

IN Robinson, John A.; Obrecht, Daniel

PA Polyphor A.-G., Switz.

SO PCT Int. Appl., 83 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
WO 2001016161 A1 20010308 WO 1999-EP6369 19990830

PI WO 2001016161 A1 20010308 WO 1999-EP6369 19990830
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,

```
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
              MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
              SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
              KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
              ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
              CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                      A 20020514 BR 1999-17475 19990830
A1 20020619 EP 1999-946064 19990830
     BR 9917475
     EP 1214336
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL
PRAI WO 1999-EP6369
                      19990830
              THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 8
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 2 OF 16 REGISTRY COPYRIGHT 2002 ACS
L2
     329077-29-4 REGISTRY
RN
FS
     PROTEIN SEQUENCE; STEREOSEARCH
SQL
     18
NTE
     cyclic
         1 ARRAEFAFKY PPYEYAYK
SEO
           =====
           1-5, 18
HITS AT:
REFERENCE
AN
     134:208139 CA
     Synthesis of template-fixed .beta.-hairpin loop mimetics
ΤI
     Robinson, John A.; Obrecht, Daniel
IN
PA
     Polyphor A.-G., Switz.
SO
     PCT Int. Appl., 83 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                            APPLICATION NO. DATE
     WO 2001016161 A1 20010308 WO 1999-EP6369 19990830
     WO 2001016161
PΙ
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
              CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
              SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
              KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                       BR 1999-17475
EP 1999-946064
                  A 20020514
     BR 9917475
                                                               19990830
     EP 1214336
                       A1
                             20020619
                                                               19990830
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
PRAI WO 1999-EP6369 19990830
RE.CNT 8
              THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 3 OF 16 REGISTRY COPYRIGHT 2002 ACS
L2
     200888-88-6 REGISTRY
RN
FS
     PROTEIN SEQUENCE
SQL 64,16,16,16,16
NTE multichain
     modified (modifications unspecified)
----- location -----
                                                 description
type
```

```
bridge Ala-1 - Ala-1' covalent bridge, tetramer bridge Ala-1' - Ala-1'' covalent bridge, tetramer bridge Ala-1'' - Ala-1''' covalent bridge, tetramer covalent bridge, tetramer
SEO
         1 ARRAARAAAR RARAEA
HITS AT: 8-13
         1 ARRAARAAAR RARAEA
SEQ
                  === ===
           8-13
HITS AT:
SEO
         1 ARRAARAAAR RARAEA
                  === ===
HITS AT:
         8-13
SEO
         1 ARRAARAAR RARAEA
                 === ===
           8-13
HITS AT:
REFERENCE 1
     128:93197 CA
AN
ΤI
     Novel heparin-binding peptides
IN
     Harris, Robert B.; Sobel, Michael
     Commonwealth Biotechnologies, Inc., USA
PΑ
so
     PCT Int. Appl., 61 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 3
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
     -----
                                           -----
                                         WO 1997-US9037 19970603
     WO 9747312 A1 19971218
PΤ
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM,
       AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
             ML, MR, NE, SN, TD, TG
     US 5877153 A
                           19990302
                                           US 1996-660592
                                                             19960611
                                      CA 1997-2257614
AU 1997-32167
EP 1997-927795
     CA 2257614
                           19971218
                                            CA 1997-2257614 19970603
                       AA
     AU 9732167
                      A1
                            19980107
                                                             19970603
                      A1
                           19990414
     EP 907368
                                                             19970603
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2001503018
                      T2
                            20010306
                                          JP 1998-501628 19970603
PRAI US 1996-660592
                      19960611
     WO 1997-US9037
                      19970603
     ANSWER 4 OF 16 REGISTRY COPYRIGHT 2002 ACS
L2
     200888-87-5 REGISTRY
RN
FS
     PROTEIN SEQUENCE
SQL 48,16,16,16
NTE multichain
     modified (modifications unspecified)
-----
           ----- location ----- description
-----
bridge
               Ala-1
                            - Ala-1' covalent bridge, trimer
```

```
Ala-1' - Ala-1'' covalent bridge, trimer
bridge
______
SEQ
       1 ARRAARAAAR RARAEA
                === ===
HITS AT: 8-13
        1 ARRAARAAAR RARAEA
SEO
                === ===
HITS AT: 8-13
        1 ARRAARAAR RARAEA
SEQ
                === ===
HITS AT: 8-13
REFERENCE 1
    128:93197 CA
AN
TI
    Novel heparin-binding peptides
IN
    Harris, Robert B.; Sobel, Michael
PA
    Commonwealth Biotechnologies, Inc., USA
    PCT Int. Appl., 61 pp.
SO
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 3
    PATENT NO. KIND DATE
                                       APPLICATION NO. DATE
    WO 9747312 A1 19971218 WO 1997-US9037 19970603
PΙ
        W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
            RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM,
            AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
            GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
            ML, MR, NE, SN, TD, TG
    US 5877153 A 19990302
                                       US 1996-660592 19960611
        2257614 AA 19971218 CA 1997-2257614 19970603
9732167 A1 19980107 AU 1997-32167 19970603
907368 A1 19990414 EP 1997-927795 19970603
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    CA 2257614
    AU 9732167
    EP 907368
            IE, FI
                     T2 20010306
    JP 2001503018
                                       JP 1998-501628 19970603
PRAI US 1996-660592 19960611
    WO 1997-US9037 19970603
    ANSWER 5 OF 16 REGISTRY COPYRIGHT 2002 ACS
L2
    200888-86-4 REGISTRY
RN
FS
    PROTEIN SEQUENCE
SQL 38,19,19
NTE multichain
    modified (modifications unspecified)
----- location ----- description
bridge Ala-1 - Ala-1' covalent bridge, dimer
SEQ
       1 ARAARRAARA AARRARAEA
HITS AT: 11-16
```

SEQ

1 ARAARRAARA AARRARAEA

====:

REFERENCE 1

```
HITS AT: 11-16
REFERENCE 1
AN
    128:93197 CA
ΤI
    Novel heparin-binding peptides
IN
    Harris, Robert B.; Sobel, Michael
PA
    Commonwealth Biotechnologies, Inc., USA
so
    PCT Int. Appl., 61 pp.
    CODEN: PIXXD2
DT
    Patent
    English
LA
FAN.CNT 3
                                 APPLICATION NO. DATE
    PATENT NO.
                 KIND DATE
    WO 9747312 A1 19971218 WO 1997-US9037 19970603
PΙ
       W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
           DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
           LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
           RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM,
           AZ, BY, KG, KZ, MD, RU, TJ, TM
       RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
           GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
           ML, MR, NE, SN, TD, TG
                  A 19990302
    US 5877153
                                     US 1996-660592 19960611
                   AA 19971218
                                    CA 1997-2257614 19970603
    CA 2257614
                  A1 19980107 AU 1997-32167 19970603
A1 19990414 EP 1997-927795 19970603
    AU 9732167
    EP 907368
       R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
           IE, FI
    JP 2001503018
                   T2
                        20010306
                                     JP 1998-501628 19970603
PRAI US 1996-660592
                   19960611
    WO 1997-US9037 19970603
    ANSWER 6 OF 16 REGISTRY COPYRIGHT 2002 ACS
L2
    197102-98-0 REGISTRY
RN
    PROTEIN SEQUENCE
FS
SQL 551
NTE
------
type ----- location ----- description
bridge Cys-492 - Cys-525 disulfide bridge
______
SEQ
       1 SNLWSTRPER VQEGSTVLIN GPQFGWYNPA YTYGIGLHGA GFDVVGNTPF
      51 AYPIVLFGTN SEIAWGATAG PQDVVDIYQE KLNPSRADQY WFNNAWRTME
      101 QRKERIQVRG QADREMTIWR TVHGPVMQFD YDQGAAYSKK RSWDGYEVQS
      151 LLAWLNVAKA RNWTEFLDQA SKMAISINWY YADKHGNIGY VSPAFLPORP
      201 ADQDIRVPAK GDGSMEWLGI KSFDAIPKAY NPPOGYLVNW NNKPAPDKTN
      251 TDTYYWTYGD RMNELVSQYQ QKDLFSVQEI WEFNQKASYS DVNWRYFRPH
      301 LEKLAQQLPA DDSSKAALTM LLAWDGMEQD QGGQNAGPAR VLFKTWLEEM
      351 YKQVLMPVVP ESHRAMYSQT GFATQQGPNP GSINLSMGTK VLLRALVLEA
      401 HPDPKRVNVF GERSSQEIMH TALQNAQARL SQEQGAQMAR WTMPTSVHRF
      451 SDKNFTGTPQ TMPGNTFAFT GYQNRGTENN RVVFDAKGVE FCDAMPPGQS
      501 GFTDRNGVRS PHYEDQLKLY ENFECKTMDV THADIRRNAQ SSTMLLIQPQ
      551 P
HITS AT:
         158-163
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
```

```
AN
     127:303825 CA
     Molecular cloning and analysis of the gene encoding the thermostable
ΤI
     penicillin G acylase from Alcaligenes faecalis
     Verhaert, Raymond M. D.; Riemens, Anja M.; van der Laan, Jan-Metske: van
ΑU
     Duin, Jan; Quax, Wim J.
     Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden University,
CS
     Leiden, 2300 RA, Neth.
SO
     Applied and Environmental Microbiology (1997), 63(9), 3412-3418
     CODEN: AEMIDF; ISSN: 0099-2240
PB
     American Society for Microbiology
DT
     Journal
LA
     English
L2
     ANSWER 7 OF 16 REGISTRY COPYRIGHT 2002 ACS
RN
     162123-34-4 REGISTRY
FS
     PROTEIN SEQUENCE
SQL 653
NTE
           -----
               ----- location ----- description
bridge Cys-211 - Cys-421 disulfide bridge
bridge Cys-217 - Cys-285 disulfide bridge
bridge Cys-241 - Cys-263 disulfide bridge
     1 MKRICGSLLL LGLSISAALA APASRPAAFD YANLSSVDKV ALRTMPAVDV
SEO
       51 AKAKAEDLQR DKRGDIPRFA LAIDVDMTPQ NSGAWEYTAD GQFAVWRQRV
          ======
      101 RSEKALSLNF GFTDYYMPAG GRLLVYPATQ APAGDRGLIS QYDASNNNSA
      151 RQLWTAVVPG AEAVIEAVIP RDKVGEFKLR LTKVNHDYVG FGPLARRLAA
      201 ASGEKGVSGS CNIDVVCPEG DGRRDIIRAV GAYSKSGTLA CTGSLVNNTA
      251 NDRKMYFLTA HHCGMGTAST AASIVVYWNY QNSTCRAPNT PASGANGDGS
      301 MSQTQSGSTV KATYATSDFT LLELNNAANP AFNLFWAGWD RRDQNYPGAI
      351 AIHHPNVAEK RISNSTSPTS FVAWGGGAGT THLNVQWQPS GGVTEPGSSG
      401 SPIYSPEKRV LGELHGGPSS CSATGTNRSD QYGRVFTSWT GGGAAASRLS
      451 DWLDPASTGA QFIDGLDSGG GTPNTPPVAN FTSTTSGLTA TFTDSSTDSD
      501 GSIASRSWNF GDGSTSTATN PSKTYAAAGT YTVTLTVTDN GGATNTKTGS
      551 VTVSGGPGAQ TYTNDTDVAI PDNATVESPI TVSGRTGNGS ATTPIQVTIY
      601 HTYKSDLKVD LVAPDGTVYN LHNRTGGSAH NIIQTFTKDL SSEAAORAPG
      651 SCG
HITS AT:
          51-56
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
REFERENCE 1
AN
     122:233986 CA
    Lysyl endopeptidase of Achromobacter lyticus
TΤ
ΑU
    Sakiyama, Fumio; Masaki, Takeharu
     Institute Protein Research, Osaka University, Osaka, 565, Japan
CS
SO
    Methods in Enzymology (1994), 244 (Proteolytic Enzymes: Serine and Cysteine
    Peptidases), 126-37
    CODEN: MENZAU; ISSN: 0076-6879
DT
    Journal
LA
    English
L2
    ANSWER 8 OF 16 REGISTRY COPYRIGHT 2002 ACS
    161413-85-0 REGISTRY
RN
FS
    PROTEIN SEQUENCE
SQL
    73,22,19,17,15
NTE
    multichain
    modified
```

```
type ----- location ----- description
______
terminal mod. Asp-1 - N-acetyl terminal mod. Orn-22 - C-terminal and terminal mod. Glu-1'' - N-acetyl terminal mod. Ser-1''' - N-acetyl bridge Lys-21 - Ala-15''' amide bridge bridge Orn-22 - Lys-19' amide bridge bridge Lys-19' - Ala-17'' amide bridge uncommon Orn-22 - -
                                      C-terminal amide
1 DEAGKKAEEE LKKLLEELKK KX
SEQ
           =====
HITS AT: 3-8
SEO
      1 HEEAKKKAEK LLEELKKLK
             =====
HITS AT: 4-9
SEQ
       1 EEAEEKAKRL LEELKKA
SEO
       1 SEKAKKLLEE LKKLA
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
REFERENCE 1
AN
     122:155196 CA
TI
     Studies on chymotrypsin-like catalysis by synthetic peptides
    Corey, Michael J.; Hallakova, Eva; Pugh, Kathleen; Stewart, John M. Sch. Med., Univ. Colorado, Denver, CO, 80262, USA
ΑU
CS
SO
    Applied Biochemistry and Biotechnology (1994), 47(2-3), 199-212
    CODEN: ABIBDL; ISSN: 0273-2289
DT
    Journal
LA
    English
L2
    ANSWER 9 OF 16 REGISTRY COPYRIGHT 2002 ACS
    144998-79-8 REGISTRY
RN
FS
    PROTEIN SEQUENCE
SQL 240
NTE modified (modifications unspecified)
----- location ----- description
------
bridge Cys-2 - Cys-24 disulfide bridge
SEQ
       1 WCLESSQSQD LSTESNLLAC IRACKPDLSA ETPVFPGNGD AQPLTENPRK
       51 YVMGHFRWDR FGRRNGSSSG GGGGGGGAGQ KREEEEVAAG EGPGPRGDGV
      101 APGPRQDKRS YSMEHFRWGK PVGKKRRPVK VYPNGAEDEL AEAFPLEFRR
      151 ELAGAPPEPA RDPEAPAEGA AARAELEYGL VAEAEAAEKK DEGPYMEHFR
                             = =====
      201 WGSPPKDKRY GGFMTSEKSQ TPLVTLFKNA IVKNAHKKGQ
HITS AT: 170-175
REFERENCE 1
AN
    118:16412 CA
TI
    Investigation of a possible role of the amino-terminal pro-region of
    proopiomelanocortin in its processing and targeting to secretory granules
ΑU
    Roy, Patrice; Chevrier, Daniel; Fournier, Helene; Racine, Chantal;
    Zollinger, Max; Crine, Philippe; Boileau, Guy
```

```
Fac. Med., Univ. Montreal, Montreal, PQ, H3C 3J7, Can.
CS
SO
     Mol. Cell. Endocrinol. (1991), 82(2-3), 237-50
     CODEN: MCEND6; ISSN: 0303-7207
DT
     Journal
     English
LA
     ANSWER 10 OF 16 REGISTRY COPYRIGHT 2002 ACS
L2
     144998-78-7 REGISTRY
RN
FS
     PROTEIN SEQUENCE
SQL 241
NTE modified (modifications unspecified)
----- location ----- description
bridge Cys-8 - Cys-20 disulfide bridge
_____
SEQ
        1 WSLESSQCQD LSTESNLLAC IRACKPDLSA ETPVFPGNGD AQPLTENPRK
        51 YVMGHFRWDR FGRRNGSSSG GGGGGGGAGQ KREEEEVAAG EGPGPRGDGV
       101 APGPRQDKRS YSMEHFRWGK PVGKKRRPVK VYPNGAEDEL AEAFPLEFRR
       151 ELAGAPPEPA RDPEAPAEGA AARAELEYGL VAEAEAAEKK DEGPYKMEHF
                                = =====
       201 RWGSPPKDKR YGGFMTSEKS QTPLVTLFKN AIVKNAHKKG O
          170-175
HITS AT:
REFERENCE 1
ΑN
     118:16412 CA
TI
     Investigation of a possible role of the amino-terminal pro-region of
     proopiomelanocortin in its processing and targeting to secretory granules
ΑU
     Roy, Patrice; Chevrier, Daniel; Fournier, Helene; Racine, Chantal;
     Zollinger, Max; Crine, Philippe; Boileau, Guy
     Fac. Med., Univ. Montreal, Montreal, PQ, H3C 3J7, Can.
CS
     Mol. Cell. Endocrinol. (1991), 82(2-3), 237-50
SO
     CODEN: MCEND6; ISSN: 0303-7207
DT
     Journal
LΑ
     English
     ANSWER 11 OF 16 REGISTRY COPYRIGHT 2002 ACS
L2
     143973-78-8 REGISTRY
RN
FS
     PROTEIN SEQUENCE
SQL 527
NTE
----- location ----- description
         Cys-6 - Cys-36 disulfide bridge
Cys-34 - Cys-43 disulfide bridge
Cys-51 - Cys-62 disulfide bridge
Cys-56 - Cys-73 disulfide bridge
Cys-75 - Cys-84 disulfide bridge
Cys-92 - Cys-173 disulfide bridge
Cys-113 - Cys-155 disulfide bridge
Cys-144 - Cys-168 disulfide bridge
Cys-180 - Cys-261 disulfide bridge
Cys-201 - Cys-243 disulfide bridge
Cys-232 - Cys-256 disulfide bridge
Cys-264 - Cys-395 disulfide bridge
Cys-307 - Cys-323 disulfide bridge
Cys-315 - Cys-384 disulfide bridge
Cys-409 - Cys-484 disulfide bridge
Cys-474 - Cys-502 disulfide bridge
```

bridge

```
SEO
          1 SYQVICRDEK TQMIYQQHQS WLRPVLRSNR VEYCWCNSGR AQCHSVPVKS
         51 CSEPRCFNGG TCQQALYFSD FVCQCPEGFA GKCCEIDTRA TCYAAQGISY
         101 RGTWSTAESG AECTNWNSSA LAQKPYSGRR PDAIRLGLGN HNYCRNPDRD
         151 SKPWCYVFKA GKYSSEFCST PACSEGNSDC YFGNGSAYRG THSLTESGAS
         201 CLPWNSMILI GKVYTAQNPS AQALGLGKHN YCRNPDGDAK PWCHVLKNRR
         251 LTWEYCDVPS CSTCGLRQYS QPQFRIKGGL FADIASHPWQ AAIFAKHRRS
         301 PGERFLCGGI LISSCWILSA AHCFQERFPP HHLTVILGRT YRVVPGAAAQ
        351 AFEVEKYIVH KEFDDDTYDN DIALLOLKSD SSRCAQESSV VRTVCLPPAD
        401 LQLPDWTECE LSGYGKHEAL SPFYSERLKE AHVRLYPSSR CTSQHLLNHT
        451 VTDNMLCAGD TRSGGPQANL HDACQGDSGG PLVCLNDGRM TLVGIISWGL
         501 GCGQKDVPGV YTKVTNYLDW IRDNMRP
 HITS AT:
            347-352
 REFERENCE 1
 AN
      Tissue plasminogen activator (t-PA) variants with decreased clearance
 TI
 IN
      Keyt, Bruce A.; Zoller, Mark J.
      Genentech, Inc., USA
 PA
 so
      PCT Int. Appl., 42 pp.
      CODEN: PIXXD2
DT
      Patent
 LA
      English
 FAN.CNT 1
      PATENT NO.
                      KIND DATE
                                              APPLICATION NO. DATE
      -----
                                               -----
PΙ
      WO 9202612 A2 19920220
WO 9202612 A3 19920319
                                              WO 1991-US5418 19910730
          W: AU, CA, JP, US
          RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE
      CA 2086835 AA 19920201 CA 1991-2086835 19910730
AU 9184187 A1 19920302 AU 1991-84187 19910730
      AU 645344
                        B2 19940113
      EP 542869 A1 19930526
EP 542869 B1 19950913
                                              EP 1991-915181 19910730
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
      JP 05509229 T2 19931222 JP 1991-513753 19910730 JP 3126381 B2 20010122
      US 5246850
US 5338546
                       A 19930921
A 19940816
                                              US 1992-912040
                                                                  19920709
                              19940816
                                              US 1993-33612
                                                                 19930316
PRAI US 1990-560515
                        19900731
      WO 1991-US5418
                        19910730
      US 1992-912040
                        19920709
L_2
      ANSWER 12 OF 16 REGISTRY COPYRIGHT 2002 ACS
      138725-98-1 REGISTRY
RN
FS
      PROTEIN SEQUENCE
SQL 73,22,19,17,15
NTE multichain
      modified
                  ----- location ----- description
 -----
terminal mod. Asp-1 - N-acetyl terminal mod. -22 - C-terminal am terminal mod. His-1' - N-acetyl terminal mod. Glu-1'' - N-acetyl terminal mod. Ser-1''' - N-acetyl bridge Lys-21 - Ala-15''' amide bridge bridge Orn-22 - Lys-19' amide bridge bridge Lys-19' - Ala-17'' amide bridge
                                               C-terminal amide
```

```
Orn-22
 uncommon
 SEO
        1 DEAGKKAEEE LKKLLEELKK KX
            =====
HITS AT: 3-8
     1 HEEAKKKAEK LLEELKKLK
 SEO
              =====
HITS AT: 4-9
SEQ
        1 EEAEEKAKRD LEELKKA
 SEQ
         1 SEKAKKLLEE LKKLA
REFERENCE 1
     116:79399 CA
AN
ΤI
     Synthetic helizyme enzymes
 IN
     Stewart, John M.; Hahn, Karl W.; Klis, Wieslaw A.
     University of Colorado Foundation, Inc., USA
PA
SO
     PCT Int. Appl., 58 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
    English
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                        APPLICATION NO. DATE
     -----
                                          -----
                     A1 19910725
PΙ
     WO 9110733
                                         WO 1991-US425 19910116
         W: CA, JP
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE
     US 5304631
                     A 19940419
                                        US 1990-464932 19900116
 PRAI US 1990-464932 19900116
L2
     ANSWER 13 OF 16 REGISTRY COPYRIGHT 2002 ACS
     138725-97-0 REGISTRY
RN
FS
     PROTEIN SEQUENCE
SQL 73,22,19,17,15
NTE multichain
     modified
                ----- location ----- description
type

terminal mod. Asp-1 - N-acetyl
terminal mod. His-1' - N-acetyl
terminal mod. Glu-1'' - N-acetyl
terminal mod. Ser-1''' - N-acetyl
bridge Lys-21 - Ala-15''' amide bridge
bridge Orn-22 - Lys-19' amide bridge
bridge Lys-19' - Ala-17'' amide bridge
orn-22 - - -
 C-terminal amide
 SEQ
         1 DEAGKKAEEE LKKLLEELKK KX
            =====
```

HITS AT: 3-8

SEQ 1 HEEAKKKAEK LLEELKKLK

======

HITS AT: 4-9

SEO 1 EEAEEKAKRL LEELKKA

REFERENCE 1

AN 116:79399 CA

TI Synthetic helizyme enzymes

IN Stewart, John M.; Hahn, Karl W.; Klis, Wieslaw A.

PA University of Colorado Foundation, Inc., USA

SO PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PRAI US 1990-464932 19900116

L2 ANSWER 14 OF 16 REGISTRY COPYRIGHT 2002 ACS

RN 128874-09-9 REGISTRY

DR 138726-00-8, 138988-30-4

FS PROTEIN SEQUENCE

SQL 73,22,19,17,15

NTE multichain

modified

type	loc	ation	description
terminal mod.	Asp-1	-	N-acetyl
terminal mod.	Orn-22	-	C-terminal amide
terminal mod.	His-1'	=	N-acetyl
terminal mod.	Glu-1''	-	N-acetyl
terminal mod.	Ser-1'''	-	N-acetyl
bridge	Lys-21	- Ala-15'''	amide bridge
bridge	Orn-22	- Lys-19'	amide bridge
bridge	Lys-19'	- Ala-17''	amide bridge
uncommon	Orn-22	-	-

SEQ 1 DEAGKKAEEE LKKLLEELKK KX

======

HITS AT: 3-8

SEQ 1 HEEAKKKAEK LLEELKKLK

=====

HITS AT: 4-9

SEQ 1 EEAEEKAKRL LEELKKA

SEQ 1 SEKAKKLLEE LKKLA

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1

AN 122:155196 CA

TI Studies on chymotrypsin-like catalysis by synthetic peptides

AU Corey, Michael J.; Hallakova, Eva; Pugh, Kathleen; Stewart, John M.

CS Sch. Med., Univ. Colorado, Denver, CO, 80262, USA

SO Applied Biochemistry and Biotechnology (1994), 47(2-3), 199-212 CODEN: ABIBDL; ISSN: 0273-2289

DT Journal LA English REFERENCE 2 AN 118:192282 CA Solid phase synthesis of a peptide designed to have enzymic activity ΤI Stewart, John M.; Cann, John R.; Corey, Michael J.; Hahn, Karl W.; Klis, ΑU Wieslaw A. Sch. Med., Univ. Colorado, Denver, CO, 80262, USA CS SO Innovation Perspect. Solid Phase Synth. Collect. Pap., Int. Symp., 2nd (1992), Meeting Date 1991, 23-7. Editor(s): Epton, Roger. Publisher: Intercept, Andover, UK. CODEN: 580LAK DT Conference English LA REFERENCE 3 AN 117:145854 CA Studies on chymohelizyme-1, a designed synthetic enzyme TI Stewart, John M.; Cann, John R.; Hahn, Karl W.; Klis, Wieslaw A. ΑIJ CS Sch. Med., Univ. Colorado, Denver, CO, 80262, USA Pept.: Chem. Biol., Proc. Am. Pept. Symp., 12th (1992), Meeting Date SO 1991, 335-6. Editor(s): Smith, John A.; Rivier, Jean E. Publisher: ESCOM, Leiden, Neth. CODEN: 57XGA9 DTConference English LΑ REFERENCE 4 AN 117:131555 CA TI Design and synthesis of a peptide having chymotrypsin-like catalytic activity Stewart, John M.; Hahn, Karl W.; Klis, Wieslaw A.; Cann, John R.; Corey, ΑU Michael CS Sch. Med., Univ. Colorado, Denver, CO, 80262, USA Front. Bioprocess. 2, Proc. (1992), Meeting Date 1990, 63-9. Editor(s): SO Todd, Paul; Sikdar, Subhas K.; Bier, Milan. Publisher: ACS, Washington, D. CODEN: 57VFAU DTConference LA English REFERENCE 5 AN 116:101663 Design and synthesis of 'chymohelizyme-1', a peptide having TI chymotrypsin-like catalytic activity ΑU Stewart, John M.; Hahn, Karl W.; Klis, Wieslaw A. CS Sch. Med., Univ. Colorado, Denver, CO, 80262, USA SO Pept. 1990, Proc. Eur. Pept. Symp., 21st (1991), Meeting Date 1990, 574-6. Editor(s): Giralt, Ernest; Andreu, David. Publisher: ESCOM Sci. Publ., Leiden, Neth. CODEN: 57HNAI DTConference LA English

REFERENCE 6

AN 113:93904 CA

TI Design and synthesis of a peptide having chymotrypsin-like esterase activity

```
Hahn, Karl W.; Klis, Wieslaw A.; Stewart, John M.
ΑU
    Med. Sch., Univ. Colorado, Denver, CO, 80262, USA
CS
    Science (Washington, D. C., 1883-) (1990), 248(4962), 1544-7
SO
    CODEN: SCIEAS; ISSN: 0036-8075
DT
    Journal
LA
    English
    ANSWER 15 OF 16 REGISTRY COPYRIGHT 2002 ACS
L2
RN
    120945-90-6 REGISTRY
   PROTEIN SEQUENCE
FS
SQL 240
NTE
______
       ----- location ----- description
bridge Cys-145 - Cys-212 disulfide bridge
bridge Cys-151 - Cys-193 disulfide bridge
______
SEO
      1 MYFKKRRWFL ILESLLLSLV TGFQDQSVPN VNAITGSNVT LTILKHPLAS
      51 YQRLTWLHTT NQKILEYFPN GKKTVFESVF KDRVDLDKTN GALRIYNVSK
     101 EDRGDYYMRM LHETEDQWKI TMEVYDLVSK PAIKIEKTKN LTDSCHLRLS
     151 CKVEDQGVDY TWYEDSGPFP QRNPGYVLEI TITPHNKSTF YTCOVSNPVS
     201 SENDTLYFIP PCTLARSSGV HWIAAWLVVT LSIIPSILLA
HITS AT:
        4 - 9
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
REFERENCE 1
AN
    111:1787 CA
TT
    The MRC OX-45 antigen of rat leukocytes and endothelium is in a subset of
    the immunoglobulin superfamily with CD2, LFA-3 and carcinoembryonic
    antigens
    Killeen, Nigel; Moessner, Rainald; Arvieux, Josiane; Willis, Antony;
ΑU
    Williams, Alan F.
    MRC Cell. Immunol. Unit, Sir William Dunn Sch. Pathol., Oxford, OX1 3RE,
CS
    EMBO J. (1988), 7(10), 3087-91
SO
    CODEN: EMJODG; ISSN: 0261-4189
DT
    Journal
   English
LA
    ANSWER 16 OF 16 REGISTRY COPYRIGHT 2002 ACS
L2
RN
    75240-26-5 REGISTRY
    PROTEIN SEQUENCE; STEREOSEARCH
FS
SQL 14
NTE
----- location ----- description
Lys-3 - Asp-14 lactam
bridge
SEQ
      1 AGKKNFFWKT FTSD
        ======
HITS AT:
       1-6
REFERENCE 1
    93:180017 CA
AN
    Non-reducible cyclic, and azaphenylalanyl6 analogs of somatostatin
ΤI
```

Hirst, B. H.; Reed, J. D.; Shaw, B.; Hayward, C. F.; Morley, J. S.

ΑU

- Med. Sch., Univ. Newcastle upon Tyne, Newcastle upon Tyne, NE1 7RU, Engl. Eur. J. Pharmacol. (1980), 65(2-3), 151-6 CS
- SO
 - CODEN: EJPHAZ; ISSN: 0014-2999
- DTJournal
- English LA